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09/659,412	09/11/2000	Lesley Davenport	LESL-0003	4614

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EXAMINER
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NGUYEN, MICHELLE P

ART UNIT	PAPER NUMBER
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2851

DATE MAILED: 07/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/659,412

Applicant(s)

DAVENPORT ET AL.

Examiner

Michelle Nguyen

Art Unit

2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 14-17, 24-28, 36 and 38-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13, 18-23, 29-35 and 37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 14-17, 24-28, 36 and 38-42 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 5.
2. Applicant's election with traverse of the subject matter of Group I, claims 1-13, 18-23, 29-35 and 37 in Paper No. 5 is acknowledged. The traversal is on the ground(s) that a serious burden on the examiner has not been shown. This is not found persuasive because a serious burden on the examiner does exist, as Inventions I-III are classified in separate subclasses each of which define subject matter different from one another.

The requirement is still deemed proper and is therefore made FINAL.

***Information Disclosure Statement***

3. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

***Specification***

4. The abstract of the disclosure is objected to for the following reasons:

Art Unit: 2851

(a) Content. Applicant is reminded of the proper content of an abstract of the disclosure:

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

(b) Language. Applicant is reminded of the proper language and format for an abstract of the disclosure:

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Appropriate correction is required.

5. The disclosure is objected to for the following reasons:

(a) Equations 1-9 are not numbered (see pages 4, 5, 7, 8).

Appropriate correction is required.

### ***Claim Objections***

6. Claims 3-5, 10-13, 18, 21, 22, 29, 30 and 37 are objected to because:

(a) In claim 3, line 1, "X" should be enclosed within parentheses.

(b) In claim 3, line 2, "Y" should be enclosed within parentheses.

(c) Claim 3 recites the limitation "the chosen excitation and emission wavelength conditions" in lines 9-10. There is insufficient antecedent basis for this limitation in the claim. Applicant may wish to delete "the".

(d) Claim 4 recites the limitation "the intensities of the vertical and horizontal polarized excitation light" in line 2. There is insufficient antecedent basis for this limitation in the claim. Applicant may wish to change "the intensities" to --intensities--; and "the vertical" to --vertical--.

(e) Claim 4 recites the limitation "the detection system" in line 3. There is insufficient antecedent basis for this limitation in the claim. Applicant may wish to change "the" to --a--.

- (f) Claim 4 recites the limitation "the vertical and horizontal polarized emission light" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim. Applicant may wish to delete "the".
- (g) In claim 4, line 7, "said" should be deleted.
- (h) Claim 5 recites the limitation "The method of claim 3, further comprising the use of" in line 1. This limitation is not a step. Since claim 5 is a method claim, it is suggested that "the use of" be changed to --using--.
- (i) Claims 10-12 are objected to for the same reasons discussed above with respect to claims 3-5, respectively.
- (j) Claim 13 does not define the following variables and/or constants:  $G$ ,  $X$ ,  $Y$ ,  $i_{VV}$ ,  $i_{VH}$ . For the purpose of the rejections set forth below, claim 13 has been treated as being dependent from claim 11.
- (k) In claim 18, line 1, "process" should be --method--.
- (l) Claims 21 and 22 are objected to for the same reasons discussed above with respect to claims 3 and 4, respectively.
- (m) Claim 22 recites the limitations "the  $E$ -factor" and the "G-factor" in lines 1 and 2, respectively. There is insufficient antecedent basis for these limitations in the claim. For the purpose of the rejections set forth below, claim 22 has been treated as being dependent from claim 21.
- (n) Claim 29 recites the limitation "the acts" in line 2. There is insufficient antecedent basis for this limitation in the claim. Applicant may wish to delete "the".

- (o) In claim 30, line 1, "29herein" should be --29 wherein--.
- (p) Claim 37 is objected to for the same reasons discussed above with respect to claim 3.
- (q) Claim 37 recites the limitation "the computer controlled instrument" in line 1. There is insufficient antecedent basis for this limitation in the claim.
- (r) Claim 37 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3 (antecedent basis issues excepted). When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).  
  
Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 3-7, 10-13, 21-23, 30-35 and 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 3 recites the limitation "said excitation correction factor X and said emission correction factor Y are determined for a given pressure (p) from said fluorescence intensities substantially according the equations:" in lines 1-3. Applicant's disclosure lacks a written description which defines the term "substantially" with respect to the equations.

Claims 10, 13, 21, 23, 30 and 37 are rejected for the same reasons discussed above with respect to claim 3.

Claims 4-7, 11-12, 22 and 31-35 include all limitations set forth in claims 3, 10, 21 and 30, respectively.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claim 23 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 23 recites the limitation "the equation:" in line 2. It is not clear to which equation this limitation refers, as no equation is provided in the claim.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.



12. Claims 1, 2, 8, 9, 18-20 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by the publication "Pressure Effects on Submicrosecond Phospholipid Dynamics Using a Long-Lived Fluorescence Probe," Journal of Fluorescence, Vol. 8, No. 2, 1998 to Targowski et al. (provided by applicant).

With regard to claim 1, Targowski et al. disclose a method for the extraction of true values of emission anisotropy from fluorescence intensities obtained for a sample under an applied hydrostatic pressure, comprising the steps of measuring polarized fluorescence intensities and then determining excitation and emission correction factors (see pp. 122-3, "Fluorescence Measurements," esp. second and third paragraphs).

With regard to claim 2, Targowski et al. teach the method of claim 1 wherein said true values are obtained from said fluorescence intensities without performing a separate pressurized calibration experiment (see pp. 122-3, "Fluorescence Measurements," esp. third paragraph).

With regard to claim 8, Targowski et al. disclose a method for the extraction of corrected values of total intensities from polarized fluorescence intensities obtained for a sample under an applied hydrostatic pressure, comprising the steps of measuring polarized fluorescence intensities and then determining excitation and emission correction factors (see pp. 122-3, "Fluorescence Measurements," esp. second through fourth paragraphs).

With regard to claim 9, Targowski et al. teach the method of claim 8 wherein said corrected total intensities are obtained from said polarized fluorescence intensities

without performing a separate pressurized calibration experiment (see pp. 122-3, "Fluorescence Measurements," esp. third and fourth paragraphs).

With regard to claim 18, Targowski et al. teach a process as recited in claim 1, further comprising determining a steady state fluorescence emission anisotropy (see pp. 122-3, "Fluorescence Measurements," esp. first paragraph).

With regard to claim 19, Targowski et al. disclose a method for obtaining the true difference in polarized fluorescence intensities from fluorescence intensities obtained for a sample under an applied hydrostatic pressure, comprising the steps of measuring polarized fluorescence intensities and then determining excitation and emission correction factors (see pp. 122-3, "Fluorescence Measurements," esp. second through fourth paragraphs).

With regard to claim 20, Targowski et al. teach the method of claim 19 wherein said true difference in polarized fluorescence intensities are obtained from said fluorescence intensities without performing a separate pressurized calibration experiment (see pp. 122-3, "Fluorescence Measurements," esp. third paragraph).

With regard to claim 29, Targowski et al. disclose implicitly a computer readable storage medium comprising computer executable code for instructing a computer-controlled instrument to perform the acts of measuring polarized fluorescence intensities and then determining excitation and emission correction factors (see pp. 122-3, "Fluorescence Measurements," esp. second and third paragraphs; p. 124, Fig. 1; Here it is understood that a computer readable storage medium as claimed is necessary for generating the graphs of Fig. 1.).

***Allowable Subject Matter***

13. Claims 3-7, 10-12, 21 and 30-35 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

14. In accordance with the general format of the claims, examiner interprets claims 13 and 22 as being dependent from claims 11 and 21, respectively. Assuming the conditions of examiner's interpretations, claims 13 and 22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

15. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claims 3, 10, 21 and 30, the prior art does not teach in accordance with all other limitations recited in the respective claims a method wherein excitation and emission correction factors are determined according to the equations:

$$X(p) = (G \cdot i_{HV} - i_{HH}) / [G \cdot i_{HV} - i_{HH} + E \cdot (G \cdot i_{VV} - i_{VH})]; \text{ and}$$

$$Y(p) = (E \cdot i_{VH} - i_{HH}) / (E \cdot i_{VH} - i_{HH} + G \cdot (E \cdot i_{VV} - i_{HV}))$$

as set forth in the claims.

Claims 4-7, 11-12 and 31-35 include all limitations set forth in claims 3, 10, 21 and 30, respectively, and, assuming the conditions of examiner's interpretations discussed above, claims 13 and 22 include all limitations set forth in claims 11 and 21, respectively.

**Conclusion**

16. The following art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent No. 5,626,134 to Zuckerman

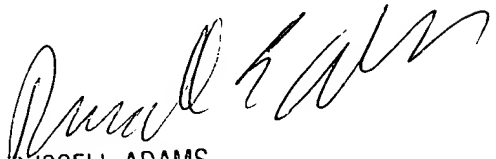
Targowski et al., "A Direct Method for the Correction of Pressure-Induced Scrambling of Polarized Fluorescence Intensities", Analytical Biochemistry, Vol. 274, pp. 249-63 (1999).

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michelle Nguyen whose telephone number is 703-305-2771. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Russ Adams can be reached on 703-308-2847. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4900.

mpn  
July 2, 2003

  
RUSSELL ADAMS  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800